#### 2019 Future Energy Scenarios

Rob Gibson

Whole System - Net Zero

July 2019



#### **Definitions**

#### **Net Zero**

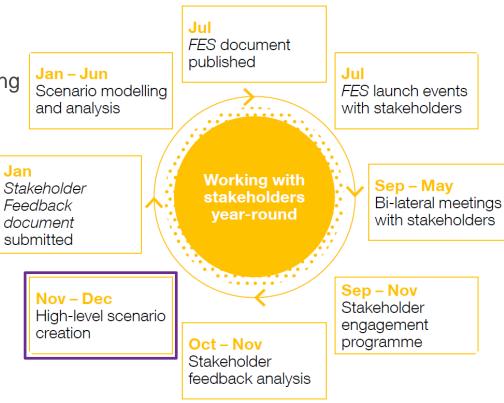
Our definition of net zero carbon emissions is that by 2050, there will be close to zero emissions of **all greenhouse gases**, **across all sectors**. This is expressed in our analysis in terms of each gas's carbon dioxide equivalent.



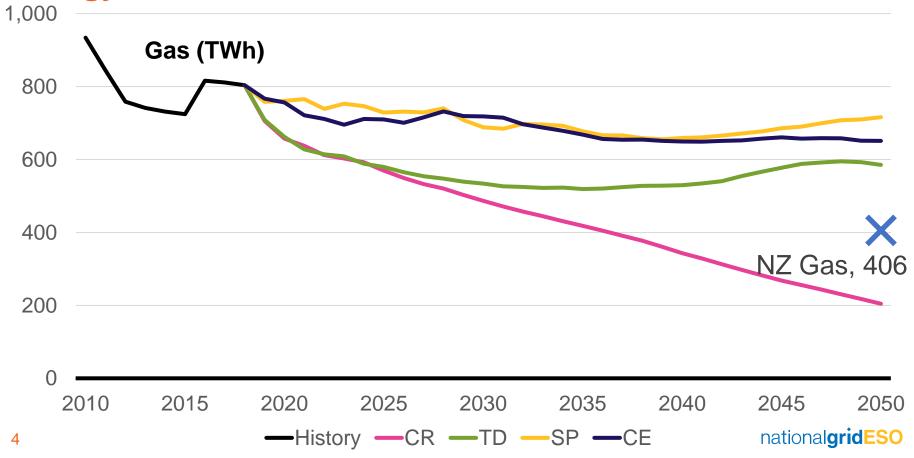
#### **Definitions**

#### Sensitivity

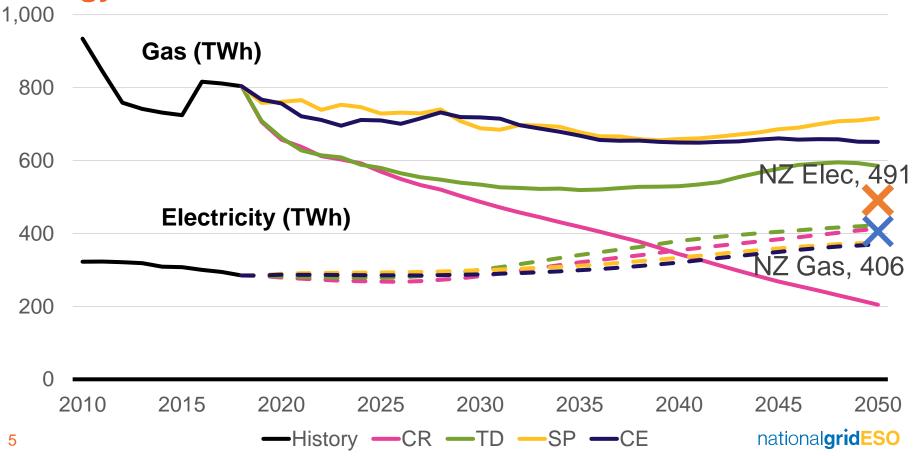
As sensitivity analysis, the focus of our modelling in FES 2019 has been on reaching the end goal of net zero greenhouse gas emissions.



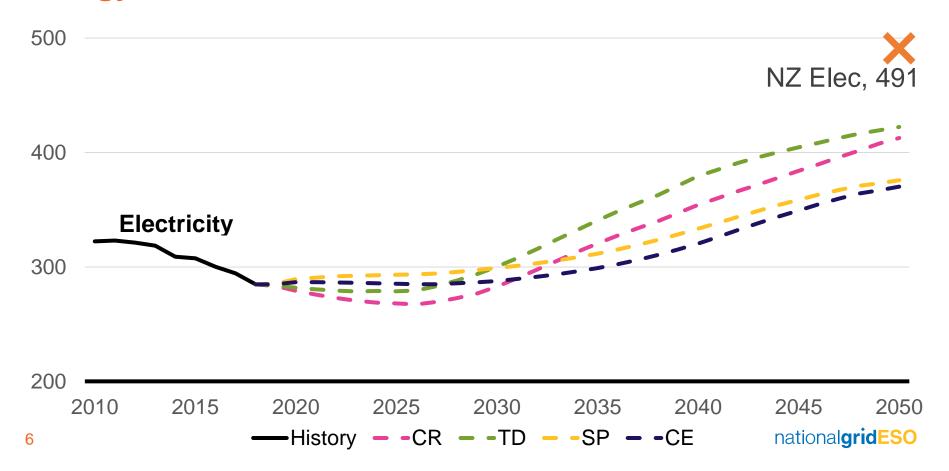
## **Energy Demand in Net Zero**



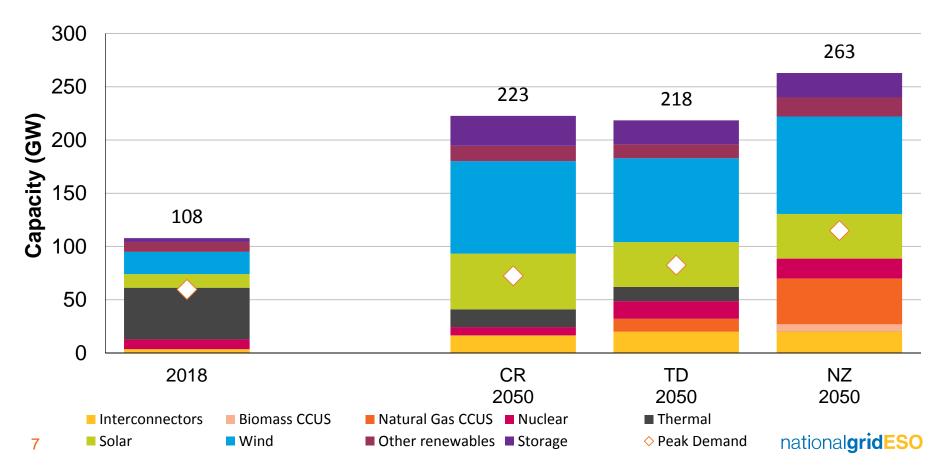
# **Energy Demand in Net Zero**



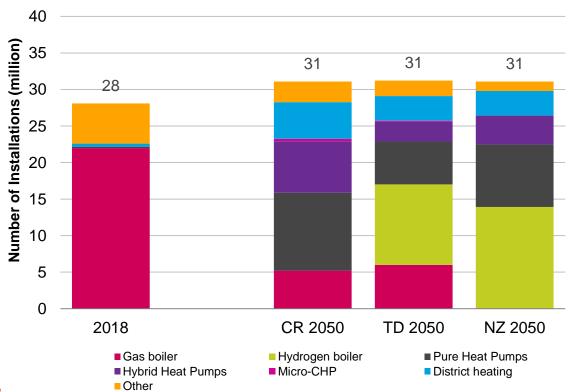
# **Energy Demand in Net Zero**



#### **Power Generation**



#### **Residential Heating**

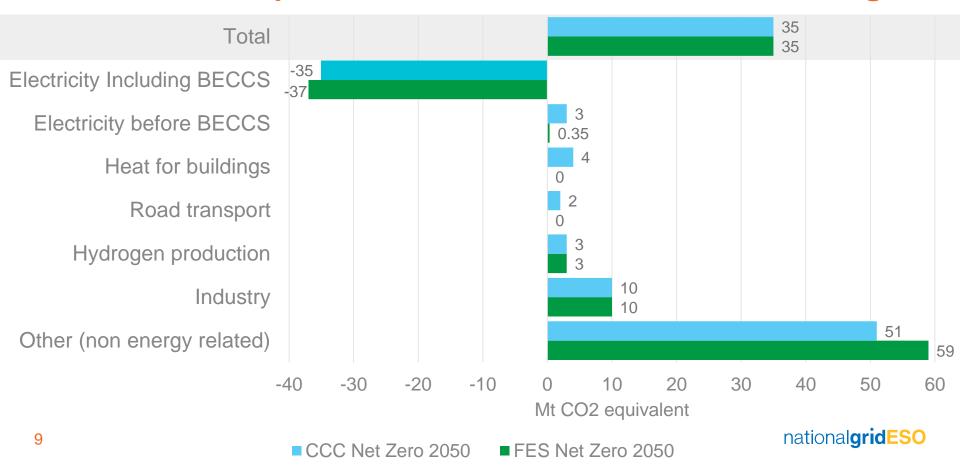




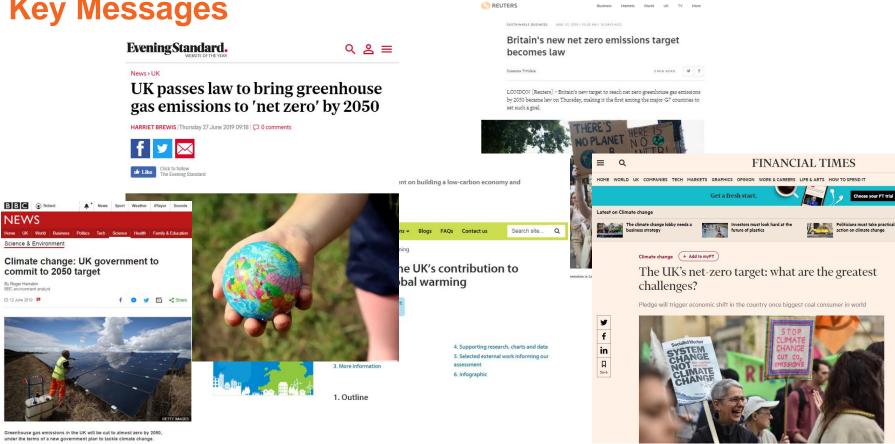
# Homes in 2050 will need to use at least one third less energy for heating than today.



# **Emissions Comparison to Committee on Climate Change**



# **Key Messages**







national**gridESO** 

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